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(12) **United States Patent**  
Subramanian et al.

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(54) **COST BASED OPTIMIZATION OF DECISION  
SUPPORT QUERIES USING TRANSIENT  
VIEWS**

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patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

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**Related U.S. Application Data**

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(51) Int. Cl.<sup>7</sup> ..... **G06F 7/00**

(52) U.S. Cl. .... **707/2; 707/3**

(58) Field of Search ..... **707/2-5**

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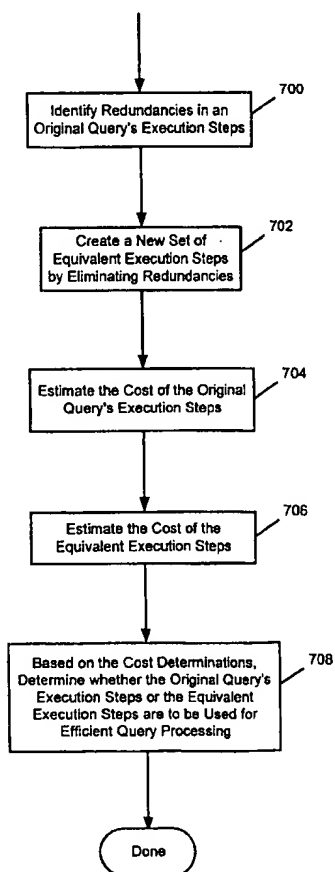
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(57) **ABSTRACT**

The present invention discloses a method, apparatus, and article of manufacture for optimizing one or more queries. Initially, redundancies in execution steps for the one or more queries are identified. Then, a new set of equivalent execution steps is created by eliminating redundancies in the execution steps. The new set of equivalent execution steps is used to execute the one or more queries when the use results in efficient query processing.

**27 Claims, 9 Drawing Sheets**



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**\*\*See image for Certificate of Correction\*\***

TITLE: Cost based optimization of decision support queries  
using transient views

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**Brief Summary Text - BSTX (8):**

As an illustration, consider an application in which an investment broker manages the investment portfolios of his clients. The portfolio information may be stored in a relational database, which also contains other information about the clients such as their address, profession, etc. The broker obtains the latest stock price, as well as **historical stock price** information from the stock exchange servers on the Web. The broker also maintains account information in a spreadsheet for each client. In order to make complex decisions involving the buying and selling of stocks for the clients, the broker would have to use decision support queries to analyze and compare information from all of these sources.

**Current US Cross Reference Classification - CCXR (1):**

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